REMARKS

This Amendment is filed in response to the Office Action mailed on October 5, 2006. All objections and rejections are respectfully traversed.

Claims 1 – 41 are currently pending.

Claims 30 – 41 are added to better claim the invention.

Request for Interview

The Applicant respectfully requests a telephonic interview with the Examiner after the Examiner has had an opportunity to consider this Amendment, but before the issuance of the next Office Action. The Applicant may be reached at 617-951-3067.

Allowable Subject Matter

Claims 1-13, 18-20 and 24-26 were deemed allowable by the Examiner.

Additionally, claims 21-23 are not expressly rejected with cited prior art. Specifically, Claim 21 is a computer readable medium claim comprising the method steps of allowable claim 18. Applicant believes that claims 21-23 are also in condition for allowance, as the Examiner did not cite a reference against these claims

Claim rejections 35 USC § 102

At page 2 of the Office Action, claim 29 was rejected under 35 U.S.C. §102 as being anticipated by Elko et al., US Patent No. 5,664,155, hereinafter Elko.

The present invention, as set forth in representative claim 29, comprises in part:

29. A utility for retrieving coredump data a coredump disk, selected from a set of disks owned by a failed filer into which memory data ("coredump") of the failed filer is stored, comprising:

a reader that scans disk labels of the set of disks to locate a label indicating the coredump disk with coredump being present in a file system region thereof; and

a writer that writes the coredump in file system region of the coredump disk to a root file system of one of either the failed filer or another filer taking-over ownership of the set of disks.

By way of background, Elko discloses a dumping service facility for data processing systems. Information such as control information is captured and a storage dump is created. The storage dump includes a number of dump tables with each dump table built for each structure being dumped. A dump table count is kept within the storage space, with a dump table count equaling zero signifying no dumps assigned to the storage dump. Global dumping controls govern the use of the allocated dump space, and the controls are retrieved through read parameters. The read parameters determine an associated dump table count and a free dumping space control. (Col. 30, lines 20-30).

Applicant respectfully urges that Elko does not disclose Applicant's claimed novel *a reader that scans disk labels of the set of disks to locate a label indicating the coredump disk with coredump being present in a file system region thereof*. In further detail, in Applicant's claimed invention the *reader* scans

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the disk labels of a set of disks to determine which disk is the coredump disk. The reader is looking for a label that shows the disk as coredump. In other words, Applicant's invention is determining which disk from a set of disks is the coredump disk. In contrast, Elko discloses reading a selected disk for a dump table count and free space. There is no disclosure of Elko determining which disk from a group of disks is the coredump disk. Elko merely discloses reading selected parameters from a known storage dump disk.

Accordingly, Applicant respectfully urges that Elko is legally insufficient to anticipate the present claims under 35 U.S.C. §102 because of the absence of the Applicant's claimed novel *a reader that scans disk labels of the set of disks to locate a label indicating the coredump disk with coredump being present in a file system region thereof.*

At page 3 of the Office Action, claim 14 was rejected under 35 U.S.C. §102 as being anticipated by Hetrick et al., US Patent No. 6,751,136, hereinafter Hetrick.

The present invention, as set forth in representative claim 14, comprises in part:

> 14. A method returning a coredump disk, selected from a set of disks owned by a failed filer into which memory data ("coredump") of the failed filer is stored, back to a "hot" spare status comprising the steps of:
> recognizing an event that requires a spare disk to be made available; and
> *writing a "kill" signature to a core region header of the coredump disk in order to return the coredump disk as soon as practicable to the "hot" spare status, wherein the "kill" signature terminates coredump operation to the coredump disk.*

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By way of background, Hetrick discloses a system for recovering data from a failed drive in a RAID system. When a failed drive occurs, the data is stored on a hot spare. The failed drive is replaced with a new replacement drive. Data stored on a hot spare drive is copied to the new replacement drive, and the hot spare returns to stand by mode.

Applicant respectfully urges that Hetrick does not disclose Applicant's claimed novel *writing a "kill" signature to a core region header of the coredump disk in order to return the coredump disk as soon as practicable to the "hot" spare status, wherein the "kill" signature terminates coredump operation to the coredump disk*. In further detail, in Applicant's claimed invention, the coredump disk may be needed immediately for normal storage operations and thus must be shifted to the available disk pool before completion of the coredump or coredump file creation. The "kill" signature is written to the core header on the coredump disk. When the coredump function scans the header and encounters the "kill" signature, the coredump function terminates the coredump operation. In contrast, Hetrick discloses adding the hot spare back to the pool of spares after the data is copied from the disk. Applicant's invention is reallocating a disk marked as a coredump disk prior to use as a coredump disk. Hetrick discloses clearing the data stored on the disk so that it can be reused. There is no disclosure or suggestion of Hetrick responding to an event to that requires the disk marked coredump to be used prior to storing the data in the disk.

Accordingly, Applicant respectfully urges that Hetrick is legally insufficient to anticipate the present claims under 35 U.S.C. §102 because of the absence of the Applicant's claimed novel *writing a "kill" signature to a core region header of the coredump disk in order to return the coredump disk as soon as*

practicable to the "hot" spare status, wherein the "kill" signature terminates

coredump operation to the coredump disk.

Claim rejections 35 USC § 103

At page 4 of the Office Action, claim 15 was rejected under 35 U.S.C. §103 as being unpatentable over Hetrick, in view of Elko.

Applicant respectfully notes that claims 15 is a dependent claim that depends from an independent claim believed to be in condition for allowance. Accordingly, claim 15 is believed to be in condition for allowance.

At page 5 of the Office Action, claims 16, 17, 27, and 28 were rejected under 35 U.S.C. §103 as being unpatentable over Elko, in view of Reeves, US Patent No. 7,028,154, hereinafter Reeves.

The present invention, as set forth in representative claim 16, comprises in part:

> 16. A disk mapping layout for a spare disk that is one of a set of disks owned by a failed file server into which memory data ("coredump") of the failed file server is stored comprising:
> a disk table of contents (TOC) region including a disk TOC that maps a plurality of regions on the disk;
> a core region that stores an identifier indicating a status of the disk including at least one of a no-coredump status, a coredump in-progress status, a coredump complete status and a coredump aborted status; and
> *a file system region including storage space for the pointed-to by the core region that is adapted to store a complete coredump data therein so as to define the disk as a dedicated coredump disk.*

By way of background, Reeves discloses method for backing up data in redundant storage system. Upon a failure, such as a power outage, data in an NVRAM located on each of two data controllers is written to disk using a Side A controller and a Side B controller. The controllers write the data to their corresponding dump disk. (Col. 7, lines33-36). The use of two controllers allows the data in each of the NVRAM to be written twice as fast. In prior art system, a single NVRAM was written to disk using a single controller.

Applicant respectfully urges that Elko and Reeves, taken alone or in combination, do not teach nor suggest Applicant's claimed novel *a file system region including storage space for the pointed-to by the core region that is adapted to store a complete coredump data therein so as to define the disk as a dedicated coredump disk*. In further detail, in Applicant's claimed invention the file system region stores file system data (e.g. data related to files and directories). The file system region extends to almost the physical end of the disk's usable storage sectors. There is no disclosure or suggestion in Elko or Reeves in copying file system data to a coredump disk. The Examiner states that Elko does not disclose a file system region. Furthermore, Reeves merely discloses dumping contents of an NVRAM to a disk. There is no suggestion in Reeves of copying the file system data to a particular region of the disk.

Accordingly, Applicant respectfully urges that Elko and Reeves, taken alone or in combination, are legally insufficient to make obvious the presently claimed invention under 35 U.S.C. § 103 because of the absence of the Applicant's claimed novel *a file system region including storage space for the pointed-to by the core region that is adapted to store a complete coredump data therein so as to define the disk as a dedicated coredump disk.*

All independent claims are believed to be in condition for allowance.

All dependent claims are believed to be dependent from allowable independent claims.

Applicant respectfully solicits favorable action.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re The Application of:)
    Loellyn J. Cassell et al.)

)

Serial No.: 10/764,773)   Examiner: Assessor, Brian J.

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Filed: January 26, 2004)

)   Art Unit: 2114

For: SYSTEM AND METHOD OF SE-)
    LECTION AND COMMUNICA-)
    TION OF A DISK FOR STORAGE)
    OF A COREDUMP)

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December 29, 2006

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